

Remarks

I. Status of claims

Claims 1-23 are pending in this case. Applicants acknowledge the Examiner's finding of allowability of claims 1-14 and 16-23. Only claim 15 is rejected. Claim 15 is amended to recite that the at least one outer layer in the film contains 5 to 40% by weight of ethylene 2,6-naphthalate units. Support for this amendment appears in the specification at page 9, line 2.

II. Rejection under 35 U.S.C. § 103(a) over Kimura

The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,747,174 to Kimura ("Kimura"). The Examiner argued that Kimura discloses a multilayer polyester film having a base layer and an outer layer, where the outer layer is composed mainly of ethylene terephthalate units. The Examiner furthermore argued that the layers of the Kimura film may also contain units derived from naphthalene dicarboxylic acid, and that one of ordinary skill in the art would have incorporated conventional comonomer units such as ethylene-2,6-naphthalate into the outer layers to optimize the properties of the film. Applicants respectfully traverse the rejection.

Kimura discloses a polyester film of base layer A having laminated on both its surfaces a polyester B. Kimura at col. 2, lines 10-16. Kimura lists a wide variety of materials as possible acid components for the polyesters of layers A and/or B. That listing of the materials spans from lines 20-41 in col. 2 of the patent as follows:

[A]n aromatic dicarboxylic acid such as terephthalic acid, isophthalic acid, phthalic acid, naphthalene dicarboxylic acid, diphenyldicarboxylic acid, diphenylsulfonedicarboxylic acid, diphenyletherdicarboxylic acid, benzophenone dicarboxylic acid and ester-forming derivatives thereof; an aliphatic dicarboxylic acid such as oxalic acid, malonic acid, succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid, undecanedioic acid, dodecanedioic acid, tridecanedioic acid, tetradecanedioic acid, pentadecanedioic acid, hexadecanedioic acid, heptadecanedioic acid, octadecanedioic acid, nonadecanedioic acid, eicosanedioic acid, heneicosanedioic acid, docosanedioic acid, tricosanedioic acid, tetracosanedioic acid, pentacosanedioic acid, hexacosanedioic acid, heptacosanedioic acid, octacosanedioic acid, nonacosanedioic acid, triacontanedioic acid and ester-forming derivatives thereof, a dimer acid obtained by dimerization of an unsaturated aliphatic acid having a carbon number of 10-25 and hydrogenated dimer acids thereof and ester-forming derivatives thereof; a cyclic dicarboxylic acid; and a polyfunctional acid can be used.

The Examiner identified the listing of naphthalene dicarboxylic acid from the above disclosure and stated that one skilled in the art would have selected it and used it to obtain ethylene 2,6-naphthalate units in an outer layer as is claimed in claim 15. Applicants respectfully disagree.

First, Kimura does not guide one skilled in the art to select naphthalene dicarboxylic acid as opposed to any other material listed in the above disclosure. Naphthalene dicarboxylic acid appears embedded within the above list of at least 5 general categories of materials (aromatic dicarboxylic acids, aliphatic dicarboxylic acids, dimer acids, cyclic dicarboxylic acids, and polyfunctional acids) and more than 35 specifically identified materials. Kimura does not explain why or under what circumstances one would choose any particular component over the other, with the exception that it does disclose the preferable use of ethylene terephthalate in the outer layer, which is obviously different from naphthalene dicarboxylic acid and ethylene 2,6-naphthalate units. Kimura at col. 2, line 59 to col. 4, line 15.

Second, Kimura generally states that the listed materials may be used in either base layer A or outer layer B, and does not teach using naphthalene dicarboxylic acid particularly in the outer layer as is claimed.

Third, the Kimura Examples do not guide the selection of naphthalene dicarboxylic acid either. Indeed, none of the Examples contain naphthalene dicarboxylic acid at all in either base layer A or outer layer B.

Lastly, nothing in Kimura suggests using the claimed amount of 5 to 40% of ethylene 2,6-naphthalate units in the outer layer is claimed. Instead, Kimura focuses instead mainly on the preferred weight percent of ethylene terephthalate in the outer layers. Kimura at col. 3, line 66 to col. 4, line 1. Thus, Kimura not only fails to guide one skilled in the art to select naphthalene dicarboxylic acid as an acid component in the outer layer, but also fails to suggest producing a film having an outer layer with 5 to 40% of ethylene 2,6-naphthalate units.

In view of the absence of the required motivation to arrive at the claimed film from the teachings of Kimura, the inventive film would not have been *prima facie* obvious and claim 15 should be allowed.

If there is any fee due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: 

Steven J. Scott
Reg. No. 43,911

Date: May 28, 2001

Appendix Indicating Changes to Claims

15. (Amended) A transparent, biaxially oriented polyester film comprising:

(A) a base layer, at least 80% by weight of which is composed of a thermoplastic polyester; and

(B) at least one outer layer, wherein the outer layer is composed of a polymer, or of a mixture of polymers comprising: 5 to 40% [at least 5%] by weight of ethylene 2,6-naphthalate units; more than 40% by weight of ethylene terephthalate units, and 0 to < 55% by weight of units from aliphatic diols, cycloaliphatic diols, aromatic diols, aliphatic dicarboxylic acids, cycloaliphatic dicarboxylic acids, aromatic dicarboxylic acids, or a combination thereof,

wherein the glass transition temperature (T_g 2 value) of the polyester film is above the T_g 2 value of the base layer but below the T_g 2 value of the outer layer, and at least one film surface has a surface tension of from 35 to 65 mN/m or has been provided with a functional coating of thickness from 5 to 100 nm or both.